

Appln. No.: 10/648,726
Amdt. dated Aug. 18, 2005
Reply to Office action of Aug. 5, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

1-42. (Cancelled).

43. (Previously presented) An access point for communicatively coupling a first roaming wireless device and a second roaming wireless device to a wired link, the access point comprising:

a control circuit;

a wired transceiver that is communicatively coupled to the control circuit and that communicatively couples to the wired link;

a first wireless transceiver that is communicatively coupled to the control circuit, the first wireless transceiver operating on a first wireless communication channel to communicatively couple with the first roaming wireless device;

a second wireless transceiver that is communicatively coupled to the control circuit, the second wireless transceiver operating on a second wireless communication channel to communicatively couple with the second roaming device; and

the control circuit accommodates communications between the first wireless transceiver and the second wireless transceiver.

44. (Previously presented) The access point of claim 43, further comprising a bus interface communicatively coupling the control circuit to the first and second wireless transceivers and the wired transceiver.

45. (Previously presented) The access point of claim 44, wherein the bus interface is substantially compliant with a bus standard.

46. (Previously presented) The access point of claim 45, wherein the bus standard is a PCI standard.

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47. (Previously presented) The access point of claim 43, wherein the wired transceiver accommodates communication with an Ethernet network.
48. (Previously presented) The access point of claim 43, wherein the wired transceiver accommodates communication with a token-ring network.
49. (Previously presented) The access point of claim 43, wherein the wired transceiver accommodates communication with an asynchronous transfer mode network.
50. (Previously presented) The access point of claim 43, wherein the wired transceiver accommodates communication with a packetized network.
51. (Previously presented) The access point of claim 43, wherein the first wireless transceiver supports a substantially non-deterministic media access protocol and the second wireless transceiver supports a substantially deterministic media access protocol.
52. (Previously presented) The access point of claim 43, wherein the first wireless transceiver and the second wireless transceiver support substantially distinct non-deterministic media access protocols.
53. (Previously presented) The access point of claim 43, wherein the first wireless transceiver and the second wireless transceiver operate independently to form a first communication cell and a second communication cell.
54. (Previously presented) The access point of claim 43, wherein the control circuit synchronizes transmissions on the first wireless communication channel and the second wireless

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communication channel to minimize conflicts between transmissions on one wireless transceiver and receipts on the other wireless transceiver.

55. (Previously presented) The access point of claim 43, wherein the wired link is a local area network.

56. (Previously presented) The access point of claim 43, wherein the first wireless transceiver and the second wireless transceiver have substantially different operating characteristics.

57. (Previously presented) A communication network comprising:

- a wired LAN;
- a plurality of access points coupled via the wired LAN, each of the plurality of access points comprising:
 - a control circuit;
 - a wired transceiver that is communicatively coupled to the control circuit and that communicatively couples to the wired LAN;
 - a first wireless transceiver that is communicatively coupled to the control circuit and operates on a first wireless communication channel;
 - a second wireless transceiver that is communicatively coupled to the control circuit and operates on a second wireless communication channel; and
 - the control circuit accommodates communications between the first wireless transceiver and the second wireless transceiver;
- a first roaming wireless device comprising a third wireless transceiver that operates on the first wireless communication channel; and
- a second roaming wireless device comprising a fourth wireless transceiver that operates on the second wireless communication channel.

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58. (Previously presented) The communication network of claim 57, wherein the first roaming wireless device operates only on the first wireless communication channel.

59. (Previously presented) The communication network of claim 57, wherein the first roaming wireless device and the second roaming wireless device have different transmission characteristics.

60. (Previously presented) The communication network of claim 57, wherein the first roaming wireless device and the second roaming wireless device incorporate different data throughput capabilities.

61. (Previously presented) The communication network of claim 57, wherein the first roaming wireless device and the second roaming wireless device operate independently to form a first communication cell and a second communication cell, respectively.

62. (Previously presented) The communication network of claim 61, wherein the radius of the first communication cell substantially equals the radius of the second communication cell.

63. (Previously presented) The communication network of claim 57, wherein the wired transceiver accommodates communication with an Ethernet network.

64. (Previously presented) The communication network of claim 57, wherein the wired transceiver accommodates communication with a token-ring network.

65. (Previously presented) The communication network of claim 57, wherein the wired transceiver accommodates communication with an asynchronous transfer mode network.

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66. (Previously presented) The communication network of claim 57, wherein the wired transceiver accommodates communication with a packetized network.

67. (Previously presented) The communication network of claim 57, wherein the first wireless transceiver supports a substantially non-deterministic media access protocol and the second wireless transceiver supports a substantially deterministic media access protocol.

68. (Previously presented) The communication network of claim 57, wherein the first wireless transceiver and the second wireless transceiver support substantially distinct non-deterministic media access protocols.

69. (Previously presented) The communication network of claim 57, wherein the third wireless transceiver is a PCMCIA card.

70. (Previously presented) The communication network of claim 57, wherein the first wireless communication channel is a radio frequency (RF) channel.

71. (Previously presented) A communication system, comprising:
a plurality of access points, each of the plurality of access points comprising:
a control circuit;
a wired transceiver that communicatively couples the control circuit to a wired LAN;
a first wireless transceiver that is communicatively coupled to the control circuit, the first wireless transceiver operating pursuant to a substantially deterministic, time bounded wireless communication protocol; and
a second wireless transceiver that is communicatively coupled to the control circuit, the second wireless transceiver operating pursuant to a substantially non-deterministic contention access wireless communication protocol; and

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a plurality of roaming wireless devices that each wirelessly communicate with at least one of the first and second wireless transceivers.

72. (Currently amended) An access point for establishing communications with a wired link, the access point comprising:

a PCMCIA interface ~~capable of~~ adapted to modularly receiving ~~receive~~ a plurality of wireless transceivers for operating on independent wireless communication channels;

a wired transceiver operable on the wired link;

interface circuitry operable to communicate with wireless transceivers modularly received via the PCMCIA interface and with the wired transceiver; and

processing circuitry coupled to the interface circuitry to control communications by the wireless transceivers modularly received via the PCMCIA interface and by the wired transceiver.

73. (Previously presented) The access point of claim 72, wherein the interface circuitry comprises a PCI bus interface for communicating with the wireless transceivers modularly received via the PCMCIA interface and with the wired transceiver according to a PCI bus standard.

74. (Previously presented) The access point of claim 72, wherein the processing circuitry is programmed with a network configuration to selectively route data through the interface circuitry to the plurality of wireless transceivers and the wired link.

75. (Previously presented) The access point of claim 72, wherein the plurality of wireless transceivers operate independently to form a plurality of communication cells.

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76. (Previously presented) The access point of claim 75, wherein the plurality of communication cells are formed by the plurality of wireless transceivers operating at different data rates.

77. (Previously presented) The access point of claim 75, wherein the plurality of communication cells are formed by the plurality of wireless transceivers operating at different power levels.

78. (Currently amended) A communication system, comprising:

a plurality of access points ~~capable of being adapted to be~~ coupled via a wired LAN, each of the plurality of access points comprising:

a control circuit;

a wired transceiver ~~that adapted to communicatively couples couple~~ the control circuit to the a wired LAN; and

a wireless transceiver system that is communicatively coupled to the control circuit, the wireless transceiver system adapted to contemporaneously operating-operate on first and second communication channels; and

a plurality of roaming wireless devices, ~~that each adapted to~~ wirelessly communicate with the wireless transceiver system using at least one of the first and second communication channels.

79. (Previously presented) An access point for establishing communications with a wired link, the access point comprising:

an interface system for modularly receiving a plurality of wireless transceivers for operating on independent wireless communication channels;

interface circuitry operable to communicate with wireless transceivers modularly received via the interface system; and

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processing circuitry that couples to the interface circuitry to control communications effected by wireless transceivers modularly received via the interface system.

80. (Previously presented) The access point of claim 79, wherein the interface system is configured to receive a plurality of cards each carrying at least one of the plurality of wireless transceivers.

81. (Previously presented) The access point of claim 80, wherein the plurality of wireless transceivers carried by the plurality of cards have substantially different operating characteristics.

82. (Previously presented) An access point for establishing communications with a wired link, the access point comprising:

receiving means for modularly receiving a plurality of wireless transceivers for operating on independent wireless communication channels;

interface means for communicating with wireless transceivers modularly received by the receiving means; and

processing means coupled to the interface means for controlling communications by wireless transceivers modularly received by the receiving means.